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Date: May 24, 2002

By:

Carol A. See
Carol A. See

PATENT
Docket No. GC652

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)

Andrew Shaw)

Serial No.: 10/068,374)

Filed: February 6, 2002)

For: Modified Target Enzymes Having)
Catalytic Triads and Uses Thereof)

Group Art Unit: 1645

Examiner: Unassigned

STATEMENT OF SAMENESS

Box Sequence
Commissioner for Patents
Arlington, VA 22202

Sir:

In accordance with 37 CFR 1.821(e) or 1.821(f) or 1.821(g) or 1.825(d), the computer readable copy of the sequence listing, and the paper copy submitted herewith in the above application are believed to be the same. The present submission contains no new matter relative to the application as originally filed.

Respectfully submitted,

Date: May 24, 2002

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#3

SEQUENCE LISTING

<110> Shaw, Andrew

<120> Modified Target Enzymes Having Catalytic Triads
and Uses Thereof

<130> GC652

<140> US 10/068,374

<141> 2002-02-06

<150> US 60/268,347

<151> 2001-02-12

<160> 5

<170> FastSEQ for Windows Version 4.0

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<211> 1404

<212> DNA

<213> Bacillus sp.

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gaaattgcaa	atgaaccgaa	tggtagtgat	gttacgtggg	acaatcaa	aaaaccgtat	540
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<211> 467

<212> PRT

<213> Bacillus sp.

<400> 2

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 Glu Glu His Gly Gln Leu Ser Ile Ser Asn Gly Glu Leu Val Asn Glu
 35 40 45
 Arg Gly Glu Gln Val Gln Leu Lys Gly Met Ser Ser His Gly Leu Gln
 50 55 60
 Trp Tyr Gly Gln Phe Val Asn Tyr Glu Ser Met Lys Trp Leu Arg Asp
 65 70 75 80
 Asp Trp Gly Ile Thr Val Phe Arg Ala Ala Met Tyr Thr Ser Ser Gly
 85 90 95
 Gly Tyr Ile Asp Asp Pro Ser Val Lys Glu Lys Val Lys Glu Thr Val
 100 105 110
 Glu Ala Ala Ile Asp Leu Gly Ile Tyr Val Ile Ile Asp Trp His Ile
 115 120 125
 Leu Ser Asp Asn Asp Pro Asn Ile Tyr Lys Glu Glu Ala Lys Asp Phe
 130 135 140
 Phe Asp Glu Met Ser Glu Leu Tyr Gly Asp Tyr Pro Asn Val Ile Tyr
 145 150 155 160
 Glu Ile Ala Asn Glu Pro Asn Gly Ser Asp Val Thr Trp Asp Asn Gln
 165 170 175
 Ile Lys Pro Tyr Ala Glu Glu Val Ile Pro Val Ile Arg Asp Asn Asp
 180 185 190
 Pro Asn Asn Ile Val Ile Val Gly Thr Gly Thr Trp Ser Gln Asp Val
 195 200 205
 His His Ala Ala Asp Asn Gln Leu Ala Asp Pro Asn Val Met Tyr Ala
 210 215 220
 Phe His Phe Tyr Ala Gly Thr His Gly Gln Asn Leu Arg Asp Gln Val
 225 230 235 240
 Asp Tyr Ala Leu Asp Gln Gly Ala Ala Ile Phe Val Ser Glu Trp Gly
 245 250 255
 Thr Ser Ala Ala Thr Gly Asp Gly Gly Val Phe Leu Asp Glu Ala Gln
 260 265 270
 Val Trp Ile Asp Phe Met Asp Glu Arg Asn Leu Ser Trp Ala Asn Trp
 275 280 285
 Ser Leu Thr His Lys Asp Glu Ser Ser Ala Ala Leu Met Pro Gly Ala
 290 295 300
 Asn Pro Thr Gly Gly Trp Thr Glu Ala Glu Leu Ser Pro Ser Gly Thr
 305 310 315 320
 Phe Val Arg Glu Lys Ile Arg Glu Ser Ala Ser Ile Pro Pro Ser Asp
 325 330 335
 Pro Thr Pro Pro Ser Asp Pro Gly Glu Pro Asp Pro Gly Glu Pro Asp
 340 345 350
 Pro Thr Pro Pro Ser Asp Pro Gly Glu Tyr Pro Ala Trp Asp Ser Asn
 355 360 365
 Gln Ile Tyr Thr Asn Glu Ile Val Tyr His Asn Gly Gln Leu Trp Gln
 370 375 380
 Ala Lys Trp Trp Thr Gln Asn Gln Glu Pro Gly Asp Pro Tyr Gly Pro
 385 390 395 400
 Trp Glu Pro Leu Lys Ser Asp Pro Asp Ser Gly Glu Pro Asp Pro Thr
 405 410 415
 Pro Pro Ser Asp Pro Gly Glu Tyr Pro Ala Trp Asp Ser Asn Gln Ile
 420 425 430
 Tyr Thr Asn Glu Ile Val Tyr His Asn Gly Gln Leu Trp Gln Ala Lys
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<210> 5
 <211> 308
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 Ser Ser His Gly Leu Gln Trp Tyr Gly Gln Phe Val Asn Tyr Glu Ser
 35 40 45
 Met Lys Trp Leu Arg Asp Asp Trp Gly Ile Thr Val Phe Arg Ala Ala
 50 55 60
 Met Tyr Thr Ser Ser Gly Gly Tyr Ile Asp Asp Pro Ser Val Lys Glu
 65 70 75 80
 Lys Val Lys Glu Thr Val Glu Ala Ala Ile Asp Leu Gly Ile Tyr Val
 85 90 95
 Ile Ile Asp Trp His Ile Leu Ser Asp Asn Asp Pro Asn Ile Tyr Lys
 100 105 110
 Glu Glu Ala Lys Asp Phe Phe Asp Glu Met Ser Glu Leu Tyr Gly Asp
 115 120 125
 Tyr Pro Asn Val Ile Tyr Glu Ile Ala Asn Glu Pro Asn Gly Ser Asp
 130 135 140
 Val Thr Trp Asp Asn Gln Ile Lys Pro Tyr Ala Glu Glu Val Ile Pro
 145 150 155 160
 Val Ile Arg Asp Asn Asp Pro Asn Asn Ile Val Ile Val Gly Thr Gly
 165 170 175
 Thr Trp Ser Gln Asp Val His His Ala Ala Asp Asn Gln Leu Ala Asp
 180 185 190
 Pro Asn Val Met Tyr Ala Phe His Phe Tyr Ala Gly Thr His Gly Gln
 195 200 205
 Asn Leu Arg Asp Gln Val Asp Tyr Ala Leu Asp Gln Gly Ala Ala Ile
 210 215 220
 Phe Val Ser Glu Trp Gly Thr Ser Ala Ala Thr Gly Asp Gly Gly Val
 225 230 235 240

Phe	Leu	Asp	Glu	Ala	Gln	Val	Trp	Ile	Asp	Phe	Met	Asp	Glu	Arg	Asn	
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			260					265						270		
Ala	Leu	Met	Pro	Gly	Ala	Asn	Pro	Thr	Gly	Gly	Trp	Thr	Glu	Ala	Glu	
		275					280						285			
Leu	Ser	Pro	Ser	Gly	Thr	Phe	Val	Arg	Glu	Lys	Ile	Arg	Glu	Ser	Ala	
	290					295					300					
Ser	Ile	Pro	Pro													
305																